

CLAIMS

1. (Currently amended) An apparatus of wave energy to electrical
energy power conversion apparatus comprising:

at least one linear generator having a stator and an armature
which can be linearly driven relative to the stator to generate
electrical energy and at least one float linked to the armature by
means of at least one link and which, in use, is immersed in the
sea to be subject to the action of waves to drive the armature, the at
least one float(s), the armature and the at least one link thereby
constituting a wave-driven mass;

wherein the weight of the wave-driven mass is substantially
equal to half the upthrust provided by the water displaced by the at
least one float(s) when fully immersed in the water; and wherein the
contribution to the weight of the wave driven mass of the at least one
float and the at least one link is negligible compared with that of the
armature.

- 2 (Cancelled) ~~Apparatus according to claim 1 wherein] the contribution~~
~~to the weight of the wave driven mass of the at least one float(s)]~~
~~and at least one link(s)] is negligible compared with that of the~~
armature.

3. (Cancelled) ~~Apparatus according to claim 1 or 2, wherein the float(s)~~
~~and link(s) contribute negligible effective parasitic mass to the wave-~~
~~driven mass.]~~

4. (Currently Amended) ~~Apparatus according to [any one of claims 1-3]~~
claim 1 The apparatus of claim 1, wherein the average horizontal area
occupied by the at least one linear generators does not exceed to any
material extent the horizontal area occupied by the at least one float the
float(s) and any perimeter space surrounding the float(s) for the effective

operation and motion thereof.

5. (Currently Amended) ~~Apparatus according to claim 1~~ The apparatus of claim 1, wherein ~~the or each float~~ the at least one float is equipped with one or more paddles, suitably contoured, to augment the force of the sea waves acting upon the at least one float.
6. (Currently Amended) ~~Apparatus according to claim 1~~ The apparatus of claim 1, in which ~~the at least one float the or each float~~ is so contoured as to minimise any wave latent forces acting upon it, while maximising its buoyancy.
7. (Currently Amended) ~~Apparatus according to claim 1~~ The apparatus of claim 1, wherein the stator of ~~the or each~~ the at least one linear generator is maintained stationary and substantially perpendicular to the sea bed, and the armature thereof is affixed directly to the at least one float for traversing the stator in accordance with the motion of the waves acting upon the at least one float.
8. (Currently Amended) ~~Apparatus according to claim 1~~ The apparatus of claim 1, wherein the stator of ~~the or each~~ the at least one linear generator is held in a cage above sea level, and the armature of the at least one generator is caused to move relative thereto by linkage means to the at least one float.
9. (Currently Amended) ~~The apparatus of Apparatus according to claim 8~~ wherein the link to the float(s) is a direct extension of the armature of the at least one linear generator.
10. (Currently Amended) ~~Apparatus according to claim 1~~ The apparatus of claim 1, in which control means is used to regulate the effective load impedance presented to the generator or generators in accordance with the strength of the prevailing wave motion acting upon the at least one float float(s), the regulation being such as

to ensure that the electromagnetic damping of the motion of the at
least one generator,~~or generators~~ as it ~~or they~~ generate electricity,
is always such as to optimise the generation of power.